

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for fluid isolation in a biological mass having at least one upstream channel and at least one downstream channel, comprising:

a delivery conduit for administering a fluid to the biological mass, the delivery conduit percutaneously having a length dimension suitable to be positioned from a first externally accessible channel of a patient adjacent to or into at least one upstream channel of the biological mass by way of a percutaneous transluminal route; and

a collection conduit for acquiring the administered fluid, the collection conduit percutaneously having a length dimension suitable to be positioned from a second externally accessible channel of a patient adjacent to or into at least one downstream channel of the biological mass by way of a percutaneous transluminal route and having a collection seal for occluding fluid flow by the collection seal having a dimension, in one configuration, to occlude the at least one downstream channel;

wherein the biological mass is selected from the group consisting of a heart, a portion of a heart, a kidney, a portion of a kidney, a stomach, a liver, and a brain.

2. (Original) The system of claim 1, further including a driving force in communication with the delivery conduit for encouraging fluid through the delivery conduit.

3. (Original) The system of claim 1, wherein the delivery conduit is for administering fluid during at least a substantial period of diastole.

4. (Original) The system of claim 1, wherein the delivery conduit is for administering fluid during the period of diastole and the period of systole.

5. (Currently Amended) The system of claim 1 wherein the delivery conduit further includes a delivery seal for occluding external fluid flow having a dimension, in one configuration, to occlude the at least one upstream channel and the delivery conduit defines a delivery opening distal to the delivery seal.

6. (Original) The system of claim 5 wherein the delivery seal is an elastomeric balloon.
7. (Currently Amended) The system of claim 6, wherein, in another configuration, the delivery seal ~~is contractible to allow external fluid flow to resume~~ past the delivery seal.
8. (Original) The system of claim 7, further including a seal control mechanism for contracting and expanding the delivery seal.
9. (Original) The system of claim 8, wherein the seal control mechanism is configured to expand the delivery seal during at least a substantial period of diastole and contract the delivery seal during at least a substantial period of systole.
10. (Original) The system of claim 1, wherein the biological mass is a human heart.
11. (Currently Amended) The system of claim 1, wherein the delivery conduit is such that the delivery conduit may be positioned into the an aorta of a patient and the length dimension of the collection conduit is such that the collection conduit may be positioned into the a coronary sinus of the patient.
12. (Original) The system of claim 1, wherein the fluid includes an agent.
13. (Original) The system of claim 12, wherein the agent is selected from the group consisting of natural and synthetic drugs, growth factors, gene therapy compositions, chemotherapeutic chemicals, anti-bacterial chemicals, anti-angiogenic chemicals and any combination thereof.
- 14-47. (Canceled)
48. (Currently Amended) A system comprising:
a delivery conduit having a length dimension suitable to be ~~percutaneously~~ positioned by a percutaneous transluminal route from a first externally accessible channel of a patient adjacent

to or into an upstream channel of a biological mass selected from the group consisting of a heart, a portion of a heart, a kidney, a portion of a kidney, a stomach, a liver, and a brain, and where the biological mass comprises at least one upstream channel and at least one downstream channel;

a separate collection conduit having a dimension suitable to be ~~percutaneously~~ positioned by a percutaneous transluminal route from a second externally accessible channel of a patient adjacent to or into a downstream channel of the biological mass, the separate collection conduit comprising a collection seal for occluding fluid flow by the collection seal; and

a fluid to be administered to the biological mass through the delivery conduit, and reclaimed by the collection conduit, wherein the system achieves fluid isolation in the biological mass between the upstream channel and the downstream channel has at least one upstream channel and at least one downstream channel.

49. (Previously Presented) The system of claim 48, wherein the fluid further comprises an agent.

50. (Previously Presented) The system of claim 49, wherein the agent is selected from the group consisting of natural and synthetic drugs, growth factors, gene therapy compositions, chemotherapeutic chemicals, anti-bacterial chemicals, anti-angiogenic chemicals, and combinations thereof.

51. (Previously Presented) The system of claim 48, wherein the delivery conduit further comprises a delivery seal for occluding external fluid flow.

52. (Previously Presented) The system of claim 51, wherein the delivery seal comprises an elastomeric balloon.

53. (Previously Presented) The system of claim 48, further comprising a pressure device, wherein the pressure device is in fluid communication with the delivery conduit.

54. (Previously Presented) The system of claim 53, wherein the pressure device exerts a positive pressure, and the pressure device is selected from the group consisting of positive

displacement pumps, syringes, vacuum pumps, delivery pumps, suction pumps, metering pumps, and intra-aortic balloon pumps.

55. (Previously Presented) The system of claim 48, further comprising a pressure device in fluid communication with the collection conduit.

56. (Previously Presented) The system of claim 55, wherein the pressure device exerts a negative pressure, and the pressure device is selected from the group consisting of positive displacement pumps, syringes, vacuum pumps, delivery pumps, suction pumps, metering pumps, and intra-aortic balloon pumps.

57. (Previously Presented) The system of claim 48, wherein the delivery conduit comprises a delivery catheter, wherein the delivery catheter includes three internal lumens.

58. (Previously Presented) The system of claim 48, wherein the delivery conduit comprises a delivery catheter, wherein the delivery catheter comprises as separate lumens, a balloon inflation lumen, a guidewire lumen, and a drug delivery lumen.

59. (Previously Presented) The system of claim 48, wherein the separate collection conduit comprises a collection catheter, wherein the collection catheter comprises three lumens.

60. (Previously Presented) The system of claim 48, wherein the separate collection conduit comprises a collection catheter, wherein the collection catheter comprises as separate lumens, a drainage lumen, a guidewire lumen, and a balloon inflation lumen.

61. (New) The system of claim 1, wherein the first externally accessible channel is selected from one of a femoral artery and a radial artery.

62. (New) The system of claim 61, wherein the second externally accessible channel is a jugular vein.

63. (New) The system of claim 48, wherein the first externally accessible channel is selected from one of a femoral artery and a radial artery.

64. (New) The system of claim 63, wherein the second externally accessible channel is a jugular vein.